

This negative correlation should be especially evident in the easy condition where perceived repulsiveness of failure should tend to be relatively high because of the higher I_1 .

The above type of interpretation therefore assumes an *autistic biasing* of judgments of probability of success among subjects high in M_{α} , especially under conditions where I_2 is high (i.e., where the task is presented as difficult), and a *defensive biasing* of these judgments among subjects who are high in M_{α} , especially under conditions where I_1 is high (i.e., where the task is presented as easy). In general, the results of the present experiment are consistent with this interpretation, although it also has difficulty in accounting for the obtained negative relationship between initial probability estimates and n Ach scores in the easy condition.

This alternative interpretation could be tested further by presenting an achievement task to subjects at a number of different levels of difficulty and investigating relationships between motive assessments and initial probability estimates. The predicted *positive* relationship between initial probability estimates and n Ach should be stronger when the task is presented as very difficult, than as moderately difficult, than as easy. The predicted *negative* relationship between initial probability estimates and test anxiety should be stronger when the task is presented as easy, than as moderately difficult, than as very difficult.¹⁰ These predictions are clearly different from those which would follow from the type of theoretical analysis developed in the present paper which sees the relationships as reflecting the influence of past experience in related situations and which considers differences in past performance in terms of Atkinson's theory of achievement motivation. Our present theoretical approach would predict that the strongest positive relationship between initial probability estimates and n Ach scores, and the strongest negative relationship between initial probability estimates and Test Anxiety scores, should both occur when the task is presented as moderately difficult.

¹⁰ Table 1 does in fact indicate a higher negative relationship between initial probability estimates and Test Anxiety scores in the easy condition.

fault. Here then is an instance where the alternative theoretical approaches imply different predictions. These predictions now await experimental test.

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LIBERATING EFFECTS OF GROUP PRESSURE¹

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A study of constructive conformity. Experimental studies have generally pointed to the negative effects of group pressure. The present experiment shows that in specific circumstances group pressure enables a person to resolve conflicting forces in a direction congruent with his values. In Exp. I Ss are instructed to administer increasingly more severe shocks to a victim. In Exp. II, 2 confederates who defy E's authority are introduced into this situation and effectively free Ss from obedience E's destructive commands. In Exp. III, the 2 confederates follow the E's commands blindly, but this does not lead to increased compliance. Some factors contributing to the powerful effect of the disobedient group are described. The author suggests that there is a direction to potential group effects inherent in the structure of a given social field.

In laboratory research, the effect of group pressure has most often been studied in its negative aspect; the conspiratorial group is shown to limit, constrain, and distort the individual's responses (Asch, 1951; Blake & Brehm, 1954; Milgram, 1964). Edifying effects of the group, although acknowledged, have rarely been demonstrated with the clarity and force of its destructive potential. Particularly in those areas in which a morally relevant choice is at issue, experimentalists typically examine pressures that diminish the scope of individual action. They have neglected effects that enhance the individual's sense of worth, enlarge the possibilities for action, and help the subject resolve conflicting feelings in a direction congruent with his ideals and values. Although in everyday life occasions arise when conformity to group pressures is constructive, in the laboratory "thinking and investigation have concentrated almost obsessively on conformity in its most sterile forms [Asch, 1959]."

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¹Exceptions become more numerous in moving from the experimental domain to the practice of group therapy and training groups. And surely the philosophy of group dynamics stresses the productive possibilities inherent in groups (Cartwright & Zander, 1960).

There are technical difficulties to demonstrating the value enhancing potential of group pressure. They concern the nature of the base line from which the group effect is to be measured. The problem is that the experimental subject ordinarily acts in a manner that is socially appropriate. If he has come to the laboratory to participate in a study on the perception of lines, he will generally report what he sees in an honest manner. If one wishes to show the effects of group influence by producing a change in his performance, the only direction open to change is that of creating some deficiency in his performance, which can then be attributed to group influences.

If men tend to act constructively under usual circumstances the obvious direction of an induced and measurable change is toward inappropriate behavior. It is this technical need rather than the inherently destructive character of group forces that has dictated the lines of a good deal of laboratory research.

The experimental problem for any study of *constructive* conformity is to create a situation in which undesirable behavior occurs with regularity and then to see whether group pressure can be applied effectively in the direction of a valued behavior outcome.²

²Another solution would be to wait until people who perform in a naturally destructive way come to the laboratory and to use them as subjects. One might deliberately seek out a group of recidivist delinquents who would ordinarily behave in a disvalued manner, and then study group effects on

EXPERIMENT I: BASE-LINE CONDITION

A technique for the study of destructive obedience (Milgram, 1963, in press) generates the required base line. In this situation a subject is ordered to give increasingly more severe punishment to a person. Despite the apparent discomfort, cries, and vehement protests of the victim, the experimenter instructs the subject to continue stepping up the shock level.

Technique

Two persons arrive at a campus laboratory to take part in a study of memory and learning. (One of them is a confederate of the experimenter.) Each subject is paid \$4.50 upon arrival, and is told that payment is not affected in any way by performance. The experimenter provides an introductory talk on memory and learning processes and then informs the subjects that in the experiment one of them will serve as teacher and the other as learner. A rigged drawing is held so that the naive subject is always assigned the role of teacher and the accomplice becomes the learner. The learner is taken to an adjacent room and is strapped into an electric chair.

The naive subject is told that it is his task to teach the learner a list of paired associates, to test him on the list, and to administer punishment whenever the learner errs in the test. Punishment takes the form of electric shock, delivered to the learner by means of a shock generator controlled by the naive subject. The teacher is instructed to increase the intensity of the electric shock one step on the generator on each error. The generator contains 30 voltage levels ranging from 15 to 450 volts, and verbal designations ranging from Slight Shock to Danger: Severe Shock. The learner, according to plan, provides many wrong answers, so that before long the naive subject must give him the strongest shock on the generator. Increases in shock level are met by increasingly insistent demands from the learner that the experiment be stopped because of growing discomfort to him. However, the experimenter instructs the teachers to continue with the procedure in disregard of the learner's protests.⁴

A quantitative value is assigned to the subject's performance based on the maximum intensity shock he administered before breaking off. Thus any subject's score may range from 0 (for a subject unwilling to administer the first shock level) to 30 (for a subject who proceeds to the highest voltage level on the board).

Their performance. This would, of course, limit the study to an atypical population.

⁴ Descriptions of the shock generator, schedule of protests from the learner, and other details of procedure have been described elsewhere and will not be restated here (Milgram, 1963, 1964).

Subjects

The subjects used in the several experimental conditions were male adults residing in the greater New Haven area, aged 20-50 years, and engaged in a wide variety of occupations. Each experimental condition described here employed 40 fresh subjects and was carefully balanced for age and occupational types (see Milgram, 1963, Table 1, for details).

Results and Discussion

In this situation a subject is instructed to perform acts that are in some sense incompatible with his normal standards of behavior. In the face of the vehement protests of an innocent individual, many subjects refuse to carry out the experimenter's orders to continue with the shock procedure. They reject the role assignment of *experimental subject*, assert themselves as persons, and are unwilling to perform actions that violate personal standards of conduct. The distribution of break-off points for this condition is shown in Table 1, Column 1. Fourteen of the 40 subjects withdrew from the experiment at some point before the completion of the command series.

The majority of subjects, however, comply fully with the experimenter's commands, despite the acute discomfort they often experience in connection with shocking the victim. Typically these obedient subjects report that they do not wish to hurt the victim, but they feel obligated to follow the orders of the experimenter. On questioning they often state that it would have been "better" not to have shocked the victim at the highest voltage levels. Consider, for example, the remarks of the following obedient subject. He has completed the experiment and is now questioned by an interviewer (who is not the experimenter).

I'd like to ask you a few questions. How do you feel? I feel all right, but I don't like what happened to that fellow in there [the victim]. He's been hollering and we had to keep giving him shocks. I didn't like that one bit. I mean he wanted to get out but he [the experimenter] just kept going, he kept throwing 450 volts. I didn't like that.

Who was actually pushing the switch? I was, but he kept insisting. I told him "No," but he said you got to keep going. I told him it's time we stopped when we get up to 195 or 210 volts.

Why didn't you just stop? He wouldn't let me. I wanted to stop. I kept hollering to stop, but he said "No." . . . I figured the voltage we were giving him was quite a bit. I wanted to stop but he [the experimenter] kept insisting not to stop. I mean

the fellow in there is hollering "I don't want to do it. I want to get out of here. I want to get out of here!"

Why didn't you just disregard what the experimenter said? He says it's got to go on, the experiment.

Do you feel a little upset? Well, I mean I feel concerned about the gentlemen in there, I do. . . . I was getting ready to walk out . . . I couldn't see the point of going on when the guy is suffering in there. I figured he was having a heart attack or something. That's the reason I wanted to stop. . . .

The subject was then debriefed carefully and had a friendly reconciliation with the victim.

TABLE 1
DISTRIBUTION OF BREAK-OFF POINTS BY CONDITION

Shock level	Verbal designation and voltage level	Base-line condition (n = 40) (1)	Hypothetical subjects (n = 40) (2)	Disobedient groups (n = 40) (3)	Obedient groups (n = 40) (4)
1	Slight Shock	0	3*	0	0
2	15	0	0	0	0
3	30	0	0	0	0
4	45	0	1	0	0
5	Moderate Shock	0	7	0	1
6	75	1	1	0	1
7	90	0	1	1	1
8	105	0	3	0	0
9	120	0	2	0	0
10	Strong Shock	6	9	3*	2
11	135	0	2	4	0
12	150	1	3	1	1
13	165	0	1	4	0
14	180	0	1	12*	0
15	Very Strong Shock	0	0	0	0
16	195	0	0	0	0
17	210	0	0	0	0
18	225	0	1	0	0
19	Intense Shock	0	0	0	0
20	240	0	0	0	0
21	255	0	0	0	0
22	270	0	0	0	0
23	285	0	0	0	0
24	300	0	0	0	0
25	Extreme Intensity Shock	1	0	3	2
26	315	1	0	0	0
27	330	0	0	0	0
28	345	0	0	1	0
29	360	0	0	0	0
30	Danger: Severe Shock	1	0	0	0
31	375	0	0	0	0
32	390	0	0	0	0
33	405	0	0	0	0
34	420	0	0	0	0
35	XXX	0	0	0	0
36	435	0	0	0	0
37	450	26	0	4	0
38	Mean maximum shock	24.55	9.00	16.45	25.70
39	Percentage defiant subjects	35.0%	100.0%	90.0%	27.5%

* These 3 subjects indicated they would refuse to administer even the lowest shock.

num shock is 368.25 volts (level = 24.55). When left on their own, subjects administer far lower shock levels than when under command.

Self-image. When persons who have not performed in the experiment are provided with a description of the experimental situation, and are asked to predict their own performance, almost all subjects see themselves as defying the experimenter at some point in the command series. Moreover, they justify their hypothetical behavior in terms of positive qualities of character, employing such statements as "I'm not the kind of person who is willing to hurt others even for the cause of science."

Column 2 of Table 1 shows the anticipated break-off points of 40 adult respondents who were asked to predict their own experimental performance. Hypothetical subjects respond in terms of ideals, values, and positive self-conceptions; these values are frequently overridden by the forces engendered in the concrete laboratory situation.

Moral judgment. Twenty undergraduates were asked to render a moral judgment on the issue of obeying or disobeying the experimenter. After describing the experiment to the respondents in concrete detail, the experimenter asked:

In terms of the moral and ethical values most important to you, and taking into account the scientific goals served by the research, how should you perform in the experimental situation? Should you go through to the end of the experiment or should you break off at some point?

Valued break-off points ranged from 0 to 255 volts with the median at 150 volts. Subjects were also asked to explain at length the values that should guide their behavior in the laboratory situation. A sample statement is given below:

I would say that one should not even start the shocks, but rather, forcibly withdraw the moment that the outline of the experiment becomes evident. My reasons for saying this are very complex . . . The first is that the society's morals, which I have absorbed, teach that it is wrong to hurt a man. Morals are usually tied in with religion and this is especially true with Christianity. Having been raised, then, in an old fashioned, staunchly Lutheran family I have internalized the view that hurting a man is wrong, and no amount of intellectual reasoning can shake this belief.

Thus, there is a clear consensus that the only behavior consistent with social values and individual conscience is to defy the experimenter at some point before the completion of the command series. Yet there is a marked discrepancy between this value judgment and the actual performance of subjects in the laboratory. Despite their protests and obvious conflict in shocking the victim, a substantial number of subjects are unable to defy the experimenter's authority, and proceed to administer the highest shock levels commanded by him.

EXPERIMENT II: GROUPS FOR DISOBEDIENCE

We may now examine in what degree group influence can release the subject from authoritarian control, and allow him to act in a direction congruent with his values and personal standards.

The strategy is to replicate Experiment I, but with this difference: the subject is placed in the midst of two peers who defy the experimenter and refuse to punish the victim against his will. In what degree will the pressure created by their action affect the naive subject's behavior?

Technique

Forty fresh subjects were studied in this condition. The procedure is identical to Experiment I with these exceptions: Four persons appear at the laboratory to take part in an experiment on "the effects of collective teaching and punishment on memory and learning." Three subjects are confederates of the experimenter and one is a naive subject. The experimenter explains that three teachers and one learner are to be used in the study, and by means of a rigged drawing, the naive subject is assigned the position of Teacher 3. The roles of Teacher 1, Teacher 2, and learner are filled by the confederates. The learner is strapped into the electric chair and the three teachers are seated before the shock generator. Teacher 1 is told to read the list of word pairs. Teacher 2 informs the subject if he is correct or incorrect in his answers, and Teacher 3 (the naive subject) administers punishment. As in Experiment I, the subjects are instructed to raise the shock level one step each time the learner makes an error. (More detailed descriptions of the group technique can be found in Milgram, 1964.)

Behavior of confederates. The confederates comply with the experimenter through the 150-volt shock. After the 150-volt level is administered Teacher 1 informs the experimenter that he does not wish to participate further, because of the learner's complaints. (It is at the 150-volt shock level that the

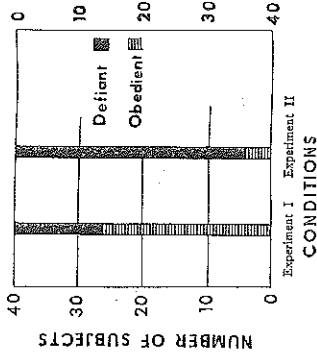


FIG. 1. Proportion of obedient and defiant subjects in Experiments I and II.

CONDITIONS

jects have refused to follow the experimenter's orders. The confederates appear to exert some influence, however, even on those subjects who do not follow them immediately. Between Voltage Levels 17 and 29, 11 subjects in Experiment II break off, while only 6 subjects do so in Experiment I.

In sum, in the group setting 36 of the 40 subjects defy the experimenter while the corresponding number in the absence of group pressure is 14. The effects of peer rebellion are most impressive in undercutting the experimenter's authority. Indeed, of the score of experimental variations completed in the Yale study on obedience none was so effective in undermining the experimenter's authority as the manipulation reported here.⁶

How should we account for the powerful effect of the experimental manipulation? It is probable that in Experiment I many subjects come near to performing the defiant action but cannot quite bring themselves to the point of disobedience. The additional pressure of the group members leads to an increment in the forces oriented toward defiance; the increment is of sufficient strength so that, in combination with pressures for defiance already present, many subjects are carried over the threshold of disobedience.

The strong liberating effect of the peers brings to mind the powerful effect of a partner in Asch's (1951) study. In that experiment⁷ See Milgram (in press) for additional experiments.

learner makes his first vehement protest. The experimenter insists that the subject continue. However, Teacher 1 is not swayed by the experimenter's commands, gets up from his chair in front of the shock generator, and takes a seat in another part of the room. Since the experimenter's efforts to get the subject to return to the generator are futile, the experimenter instructs the remaining two subjects to continue with the experiment. Teacher 3 (the naive subject) is to handle the reading of word pairs, in addition to his regular job of administering electric shock to the learner.

After Shock Level 14 (210 volts) is administered, Teacher 2, expressing concern for the learner, refuses to participate further. The experimenter makes strong efforts to have him continue, but he too leaves his chair in front of the generator and seats himself at an opposite corner of the room, saying "I'm not willing to answer any of your questions, but I'm not willing to shock that man against his will; I'll have no part of it."

At this point the naive subject is seated alone in front of the shock generator. He has witnessed the defiant actions of two peers. The experimenter orders the naive subject to continue with the experimental procedure by himself, indicating that it is essential that the experiment be completed.

Results and Discussion

The break-off points of the naive subjects in Experiment II are shown in Table 1, Column 3. The arrows at Shock Levels 10 and 14 indicate the points at which each of the confederates defied the experimenter.

Comparing the proportion of obedient to defiant subjects in Experiments I and II, we see that the effect of the confederates' presence was substantial. In Experiment I, 26 subjects proceeded to the end of the command series; less than one-sixth of this number obeyed fully in the group setting (obedient versus defiant subjects $\chi^2 = 25.81$, $df = 1$, $p < .001$). These results are presented graphically in Figure 1. The mean maximum shock in Experiment II (1645) was also significantly lower than in Experiment I (2455), $p < .001$.⁸

After Shock Level 14 the second confederate defies the experimenter. Before Level 15 is administered, 25 naive subjects have followed the defiant group, while at the corresponding point in Experiment I only 8 sub-

⁶ Of course the mean maximum shock in the experimental condition is tied to the precise point in the voltage series where the confederates' break-off is staged. In this experiment it is not until Level 14 that both confederates have defied the experimenter.

negative pressures originated within the group itself so that the conflicting agents (partner versus majority) were internal to the group boundary; in the present study the peers freed the subject from an influence that is external to the group. Additionally, the partner's support in Asch's study leads to a response that is fundamentally similar in form but different in value from that of the erring majority. In the present study the peers initiate a radically different order of response, one which has no antecedent in the course of the laboratory hour, and which destroys the very framework of the experiment.

Reactions to the confederates. The reactions of naive subjects to the defiant confederates varied considerably and were in part dependent on the exact point where the subject himself defied the experimenter. A subject who quit simultaneously with the first confederate stated, "Well, I was already thinking about quitting when the guy broke off." Most defiant subjects praised the confederates with such statements as, "I thought they were men of good character, yes I do. When the victim said 'Stop,' they stopped [Shock Level 11]."⁷ "I think they were very sympathetic people . . . and they were totally unaware of what was in store for them [Shock Level 14]."

A subject who defied the experimenter at Level 21 qualified his approval: "Well I think they should continue a little further, but I don't blame them for backing out when they did."

A few subjects acknowledged the importance of the confederates in leading to their own defiance: "The thought of stopping didn't enter my mind until it was put there by the other two [Shock Level 14]."⁸ "The reason I quit was that I did not wish to seem callous and cruel in the eyes of the other two men who had already refused to go on with the experiment [Shock Level 14]."⁹ The majority of subjects, however, denied that the confederates' action was the critical factor in their own defiance.⁵

⁷ Numerals in brackets indicate the break-off point of the subject quoted.

⁸ Twenty-seven of the defiant subjects stated that they would have broken off without the benefit of the confederates' example; four subjects definitely

The fact that obedient subjects failed to follow the defiant group should not suggest that they did not feel the pressure of the confederates' action. One obedient subject stated:

I felt that I would just look like a real Simon Legree to these guys if I just went on coolly and just kept administering lashes. I thought they reacted normally, and the first thing that came to my mind was to react as they did. But I didn't, because if they reacted normally, and stopped the experiment, and I did the same, I don't know how many months and days you'd have to continue before you got done.

Thus this subject felt the burden of the group judgment, but sensed that in the light of two defections he had a special obligation to help the experimenter complete his work. Another obedient subject, when asked about the nervousness he displayed in the experiment, replied:

I think it was primarily because of their actions. Momentarily I was ready to go along with them. Then suddenly I felt that they were just being ridiculous. What was I doing following the crowd? . . . They certainly had a right to stop, but I felt they lost all control of themselves.

And a third obedient subject criticized the confederates more directly, stating:

I don't think they should have quit. They came here for an experiment, and I think they should have stuck with it.

A closer analysis of the experimental situation points to a number of specific factors that may contribute to the group's effectiveness:

1. The peers insill in the subject the *idea* of defying the experimenter. It may not have occurred to some subjects as a response possibility.

2. The lone subject has no way of knowing whether, in defying the experimenter, he is performing in a bizarre manner or whether this action is a common occurrence in the laboratory. The two examples of disobedience

acknowledged the confederates' rebellion as the critical factor in their own defiance. The remaining defiant subjects were undecided on this issue. In general, then, subjects underestimate the degree to which their defiant actions are dependent on group support.

he sees suggest that defiance is a natural reaction to the situation.

3. The reactions of the defiant confederates define the act of shocking the victim as improper. They provide social confirmation to the naive subject's suspicion that it is wrong to punish a man against his will, even in the context of a psychological experiment.

4. The defiant confederates remain in the laboratory even after withdrawing from the experiment (they have agreed to answer post-experimental questions). Each additional shock administered by the naive subject now carries with it a measure of social disapproval from the two confederates.

5. As long as the two confederates participate in the experimental procedure there is a dispersion of responsibility among the group members for shocking the victim. As the confederates withdraw, responsibility becomes focused onto the naive subject.⁶

6. The naive subject is a witness to two instances of disobedience and observes the consequences of defying the experimenter to be minimal.

7. There is identification with the disobedient confederates and the possibility of falling back on them for social support when defying the experimenter.

8. Additionally, the experimenter's power may be diminished by the very fact of failing to keep the two confederates in line, following the general rule that every failure of authority to exact compliance to its commands weakens the perceived power of the authority (Homans, 1961).

Hypothesis of Arbitrary Direction of Group Effects

The results examined thus far show that group influence serves to liberate individuals effectively from submission to destructive commands. There are some who will take this to mean that the direction of group influence is arbitrary, that it can be oriented toward destructive or constructive ends with equal impact, and that group pressure need merely be inserted into a social situation on one side of a standard or the other in order to induce movement in the desired direction.

⁶ See Wallach, Kogan, and Bem (1962) for a treatment of this concept dealing with risk taking.

This view ought to be questioned. Does the fact that a disobedient group alters the behavior of subjects in Experiment II necessarily imply that group pressure can be applied in the other direction with similar effectiveness? A competing view would be that the direction of possible influence of a group is not arbitrary, but is highly dependent on the general structure of the situation in which influence is attempted.

To examine this issue we need to undertake a further experimental variation, one in which the group forces are thrown on the side of the experimenter, rather than directed against him. The idea is simply to have the members of the group reinforce the experimenter's commands by following them unflinchingly, thus adding peer pressures to those originating in the experimenter's commands.

EXPERIMENT III: Obedient Groups

Forty fresh subjects, matched to the subjects in Experiments I and II for sex, age, and occupational status, were employed in this condition. The procedure was identical to that followed in Experiment II with this exception: at all times the two confederates followed the commands of the experimenter; at no point did they object to carrying out the experimental instructions. Nor did they show sympathy for or comment on the discomfort of the victim. If a subject attempted to break off they allowed the experimenter primary responsibility for keeping him in line, but contributed background support for the experimenter; they indicated their disapproval of the naive subject's attempts to leave the experiment with such remarks as: "You can't quit now; this experiment has got to get done." As in Experiment II the naive subject was seated between the two confederates, and in his role of Teacher 3, administered the shocks to the victim.

Results and Discussion

The results, presented in Table 1, Column 4, show that the obedient group had very little effect on the overall performance of subjects. In Experiment I, 26 of the 40 subjects complied fully with the experimenter's commands; in the present condition this figure is increased but 3, yielding a total of 29 obedient subjects. This increase falls far short of statistical significance ($\chi^2 = .52$, $df = 1$, $p > .50$). Nor is the difference in mean maximum shocks statistically reliable. The failure of the manipulation to produce a significant change cannot be attributed to a ceiling arti-

fact since an obedient shift of even 8 of the 14 defiant subjects would yield the .05 significance level by chi square.

Why the lack of change when we know that group pressure often exerts powerful effects? One interpretation is that the authoritarian pressure already present in Experiment I has preempted subjects who would have submitted to group pressures. Conceivably, the subjects who are fully obedient in Experiment I are precisely those who would be susceptible to group forces, while those who resisted authoritarian pressure were also immune to the pressure of the obedient confederates. The pressures applied in Experiment III do not show an effect because they overlap with other pressures having the same direction and present in Experiment I; all persons responsive to the initial pressure have already been moved to the obedient criterion in Experiment I. This possibility seems obvious enough in the present study. Yet every other situation in which group pressure is exerted also possesses a field structure (a particular arrangement of stimulus, motive, and social factors) that limits and controls potential influence within that field.¹⁰ Some structures allow group influence to be exerted in one direction but not another. Seen in this light, the hypothesis of the arbitrary direction of group effects is inadequate.

In the present study Experiment I defines the initial field: the insertion of group pressure in a direction opposite to that of the experimenter's commands (Experiment II) produces a powerful shift toward the group. Changing the direction of group movement

(Experiment III) does not yield a comparable shift in the subject's performance. The group success in one case and failure in another can be traced directly to the configuration of motive and social forces operative in the starting situation (Experiment I).

Given any social situation, the strength and direction of potential group influence is predetermined by existing conditions. We need to examine the variety of field structures that typify social situations and the manner in which each controls the pattern of potential influence.

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INTERPRETATION OF WORDS IN SCHIZOPHRENIA¹

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The interpretation and use of words by schizophrenics is described by a theory reconciling previous findings that appear contradictory if viewed in terms of other theories. The present theory states that schizophrenics suffer from an excessive reliance on the strongest normal meaning responses, which are defined as representations of portions of the denotative meaning of words. Confirmatory results indicated schizophrenics (a) more than normal Ss, judged similar-meaning word pairs to have the same meaning ($p < .01$), and more so when the strongest meaning response for both words was identical ($p < .001$); but (b) less than normal Ss judged them to have similar meanings ($p < .07$).

Schizophrenics often use common words in ways which indicate that they invest words with deviant meanings. This is seen most dramatically in those patients with whom verbal communication breaks down despite a continuing exchange of conversation, but it also is seen to some degree in almost every schizophrenic patient. The present investigation examines this deviancy by studying the characteristics of words which schizophrenics regard as synonymous.

Schizophrenics substitute words for one another in ways which normal subjects do not. These words often have a slight similarity which normal persons recognize, but do not regard as sufficient to treat the words as interchangeable. For example, Bleuler's (1950, p. 19) patient who said, "Brutus was an Italian," instead of saying, "Brutus was a Roman," might be viewed as regarding "Italian" and "Roman" as interchangeable on the basis of their similarity of meaning. One patient encountered among those interviewed for the present research spoke of "handlëbars" of an automobile instead of "steering wheel." Another substituted "hexagon" for the number "six."

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